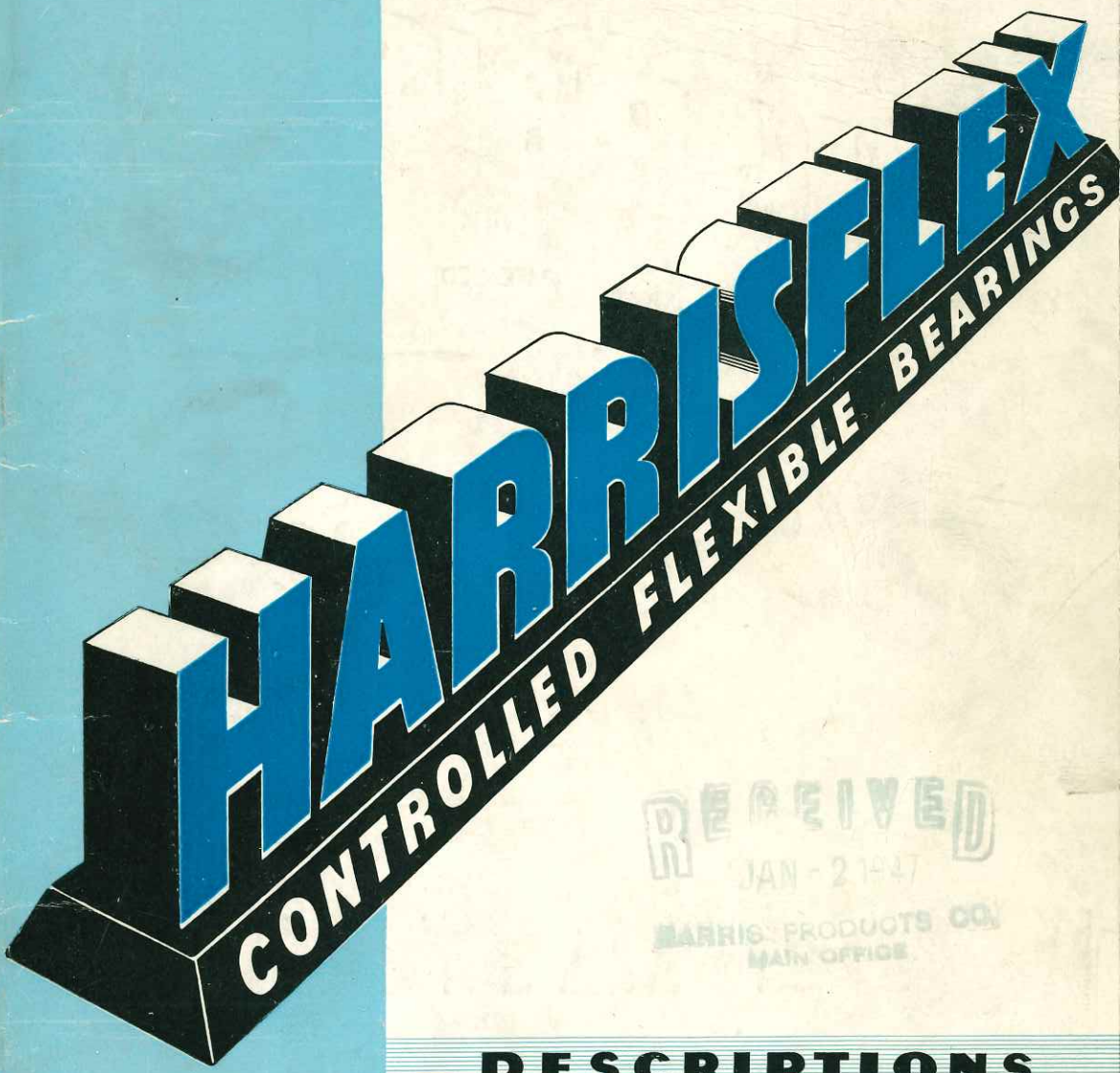
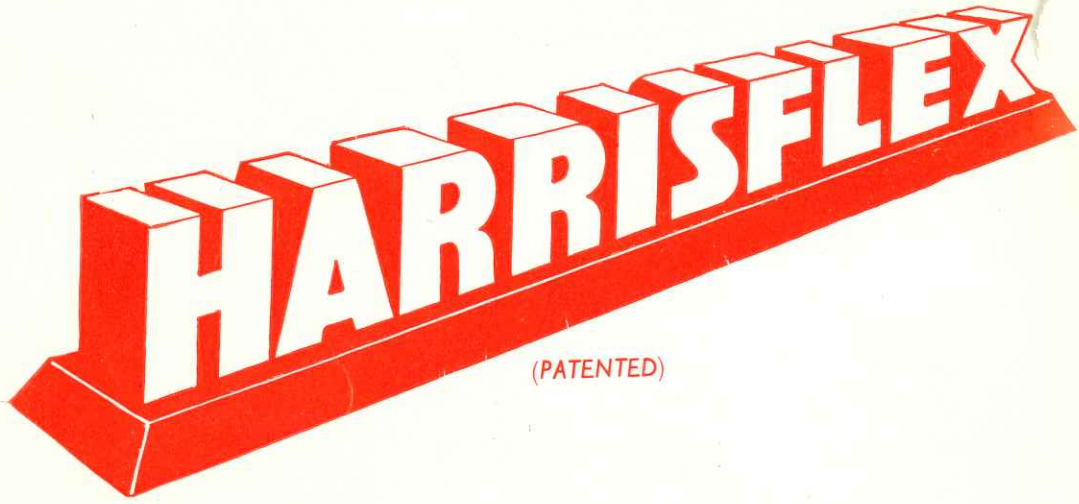


DESCRIPTIONS

OPERATIONS

APPLICATIONS



Controlled

FLEXIBLE BEARINGS

HARRISFLEX BEARINGS LTD.

Head Office: TIDDINGTON ROAD, STRATFORD-ON-AVON

'Phone
Stratford-on-Avon 3296, 3297

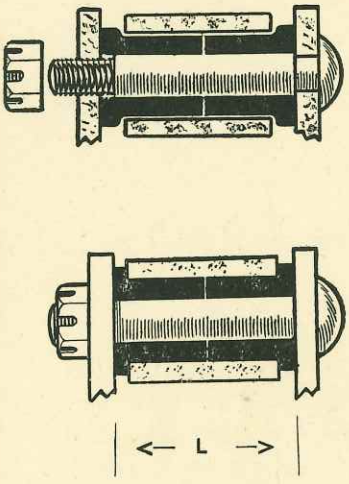
Cables & 'Grams
"Harrisflex, Stratford-on-Avon"

Codes A.B.C. 5th Edition Bentley's and Motor Trade

Foreword

GENERAL ADVANTAGES

In this day and age the manifold advantages of rubber bearings, for numerous working parts of automobiles and other modern machinery, need no elaborate explanation. Engineers are fully aware that, applied to any form of pin joint where oscillatory movements occur, the rubber bearing of sound design provides a quiet and durable bearing, at low cost, which needs neither lubrication nor adjustment. In many cases the insulating effect of the rubber is also valuable in its ability to prevent the transmission of undesirable vibrations through the mechanism.



The principle of the Harrisflex bearing is shown here. The shouldered bolt determines dimension "L" to which the rubber bearings are compressed. The lower sketch shows the bearing finally assembled.

UNRIVALLED EXPERIENCE

These are general claims, inherent in the use of rubber in place of metal-to-metal contacts. Harrisflex rubber bearings possess, in addition, a number of specific advantages which have placed them in a pre-eminent position for automobile use in the United States. Now they are being manufactured and marketed by a British company for which the technique and accumulated experience of the associated American engineers is available without reservation.

WORLD-WIDE USE

There is no satisfactory substitute for experience and, by the same token, the years of trouble-free service rendered by

millions of Harrisflex bearings, in motor cars and trucks operated throughout the world, is the most practical evidence of their excellent properties that could be offered.

MANUFACTURING PROCESSES

A major factor in the success of Harrisflex bearings has been the development of new methods for compounding and curing the rubber. As a result of the remarkable progress made by the Harrisflex engineers in manufacturing technique, the sizes of bearing required for various applications have been steadily reduced to the highly practical and commercial standards represented by the present range. In many cases, such as spring shackles, this reduction in size has also a valuable advantage in minimizing the torsional resistance offered by the bearing. The confidential processes of manufacture, developed during the past few years to make these results possible, are utilized in full in the British factory.

DUAL CONTROL : AXIAL & RADIAL

In many important applications a rubber bearing is loaded both radially and axially; to function effectively the bearing must exercise a close control upon movement in each direction and yet must operate freely in respect of torque. The Harrisflex bearing provides this dual control because, in assembly, it is compressed to a moderate and pre-determined extent (both radially and axially) by the clamping of the end plates.

FIT OF THE BEARINGS

From the illustrations on these pages it will be appreciated that the bearing, as assembled, is an easy fit in the eye, and on the pin, but has an excess of length. When the assembly is clamped, to a degree which is set by a shoulder on the pin or some similar device, the reduction in length results in a moderate (but firm) endwise and radial compression of the rubber. The shoulders formed at the ends of many of these bearings are to ensure their correct spacing between the end plates on assembly; they are not themselves responsible for the control of axial movement. The degree of control afforded can be varied according to the difference in the length of the bearing before and after compression.

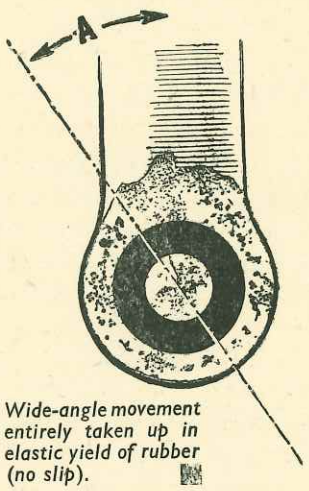
DIMENSIONAL DATA

Owing to their wide experience in co-operating with the automobile designer, Harrisflex engineers are able and willing to proffer any data required as to the size and type of bearing best suited to a particular purpose. In such matters practical experience is the only useful criterion and one which safeguards the product in respect of durability and performance. We do not find, in general, that the requirements of the bearing (for satisfactory service) impose any undesirable limitation upon the design of the parts to which it is to be fitted.

INSULATING PROPERTIES

An advantage of any rubber bearing is that in separating metal parts it provides a complete change of material to interrupt high-frequency vibrations. For dealing with vibrations of somewhat lower frequency, and greater amplitude, it is generally agreed that the **thickness** of a rubber insulation is an important factor. In the Harrisflex bearing the thickness of rubber is the maximum that can be provided in the compass of any given outer and inner circumferences because it fills the whole of the annular space available between the eye and the pin.

RANGE OF MOVEMENT



Wide-angle movement entirely taken up in elastic yield of rubber (no slip).

The maximum angular range of movement which the Harrisflex bearing will permit before creep occurs depends upon the rate of oscillation and the design of the bearing concerned; it can reach 70 degrees **each way** (from the normal position) but will normally be designed to give $\pm$ 30 degrees. In this as in other problems our experience of successful applications provides the best guide to sound practice.

EASE OF ASSEMBLY AND FITTING

The ready manner in which parts fitted with Harrisflex bearings can be assembled and taken apart will be clear from the principles already described. Another highly practical advan-

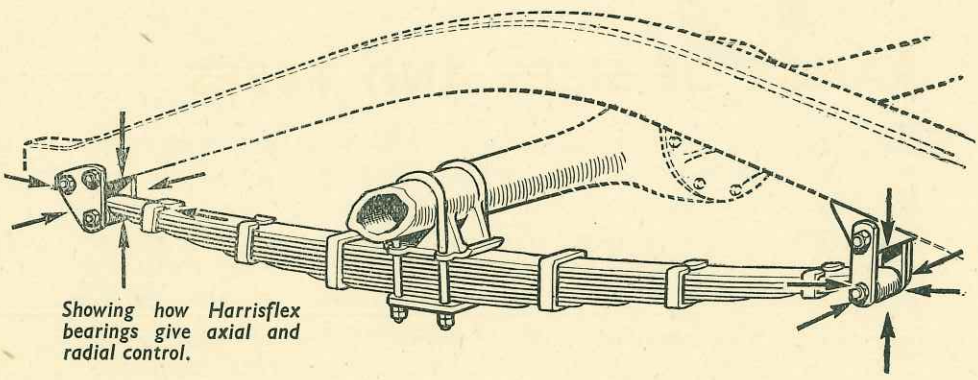
tage lies in the self-adjusting properties of these bearings. Thus in the case of a spring shackle, or similar part, they need not be fitted in any specific angular position, but can be assembled into the free (unloaded) spring. In the first few miles of road running the Harrisflex bearings adjust themselves to the best average ride position and thereafter "stay put" without further relative movement between rubber and metal.

SUSPENSION SYSTEMS

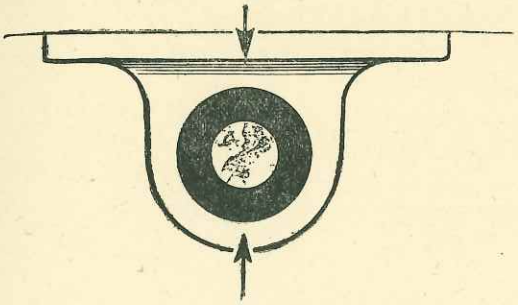
The application of Harrisflex bearings to suspension systems requires special mention in that the various properties which we have described are particularly important in this connection. In conventional suspensions, axial control of the spring attachments (as afforded by Harrisflex bearings) is highly desirable owing to its beneficial effect upon the steering qualities of the car, stability on corners and the general limitation of lateral axle movements. For independent suspensions Harrisflex bearings have been very widely and successfully used in the mounting of "wishbones" and other radius links, an adequate demonstration of the close control which they provide. They are also extensively employed for torsional stabilizers (or anti-roll devices), shock absorber links, etc. . . .

OTHER APPLICATIONS

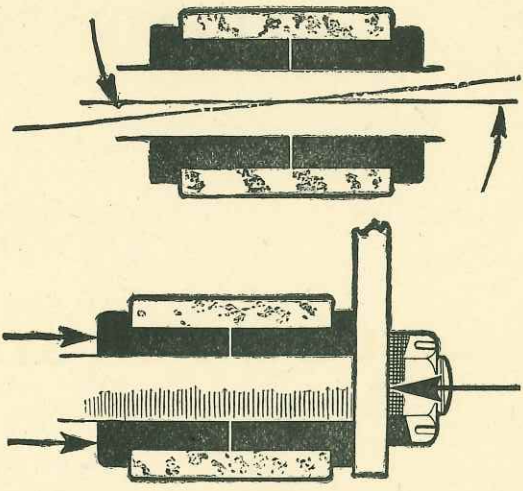
The extensive use of rubber in the modern car is emphasized by a chassis view in which these manifold applications are named. For each of them, suitable Harrisflex bearings or



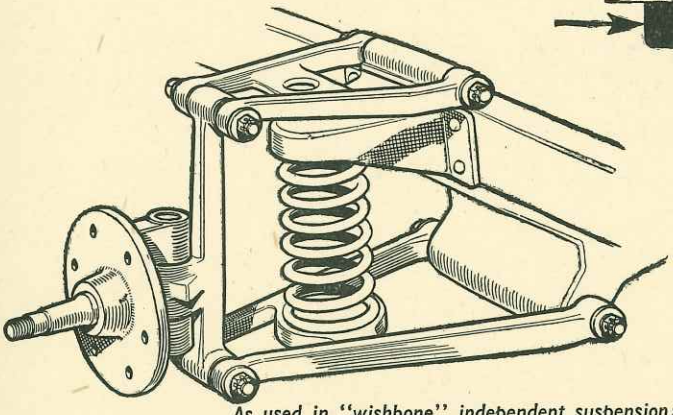
Showing how Harrisflex bearings give axial and radial control.



Negligible distortion under radial loads—either direct or twisting in action.



Full resistance against lateral or axial forces.



As used in "wishbone" independent suspensions, where safety and full control are essential to satisfactory performance.

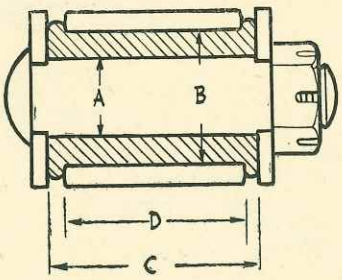
mountings are available. Our engineers have had specialized experience of all these fittings and the individual problems which they introduce. For example, prolonged testing and service have shown the Harrisflex bearing to be capable of standing up to the temperatures reached in silencer and engine mountings, the oil with which shackles are spattered when springs are sprayed, and the shock loading in vital parts such as steering connections.

RANGE OF SIZES AND TYPES

The pages which follow provide technical data as to the range of sizes and types in which British-made Harrisflex bearings are already available. In presenting this summary of the properties and dimensions of our products we would like to emphasize once again the practical experience which lies behind them and the desire of our engineering staff to co-operate with the automobile manufacturer in order to secure the outstanding performance and service which these bearings can provide.

TYPES & DIMENSIONS

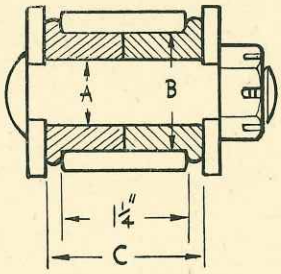
SPOOL TYPE



Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length	"D" Width Eye
CW 706-A	$\frac{5}{16}$"	$\frac{11}{16}$"	$\frac{13}{16}$"	$\frac{5}{8}$"
CW 1238	$\frac{7}{16}$"	1 $\frac{1}{16}$"	$\frac{7}{8}$"	$\frac{43}{64}$"
CW 901	$\frac{1}{2}$"	$\frac{7}{8}$"	$\frac{15}{16}$"	$\frac{11}{16}$"
CW 755	$\frac{9}{16}$"	$\frac{15}{16}$"	1 $\frac{1}{2}$"	1 $\frac{3}{16}$"
CW 704	$\frac{5}{8}$"	1 $\frac{1}{8}$"	1 $\frac{1}{4}$"	$\frac{15}{16}$"
CW 978	$\frac{5}{8}$"	1 $\frac{1}{8}$"	1 $\frac{1}{2}$"	1 $\frac{1}{4}$"
CW 994	$\frac{5}{8}$"	1 $\frac{1}{8}$"	1 $\frac{1}{2}$"	1 $\frac{1}{4}$"
CW 1235	$\frac{11}{16}$"	1 $\frac{1}{8}$"	1 $\frac{1}{16}$"	$\frac{13}{16}$"
CW 776	$\frac{3}{4}$"	1 $\frac{1}{4}$"	1 $\frac{7}{16}$"	1 $\frac{3}{16}$"
CW 742	$\frac{7}{8}$"	1 $\frac{5}{16}$"	1 $\frac{1}{4}$"	1"
CW 778	$\frac{7}{8}$"	1 $\frac{5}{16}$"	1 $\frac{1}{2}$"	1 $\frac{1}{4}$"
CW 766	$\frac{7}{8}$"	1 $\frac{1}{2}$"	2"	1 $\frac{5}{8}$"
CW 991	1 $\frac{1}{8}$"	1 $\frac{45}{64}$"	1 $\frac{11}{16}$"	1 $\frac{1}{4}$"

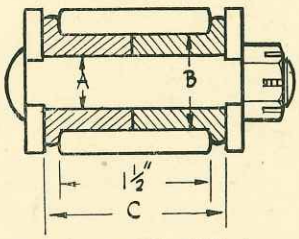
TYPES & DIMENSIONS

SHOULDER TYPE



WIDTH OF EYE 1¼"
(2 bearings per eye)

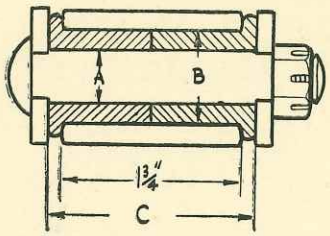
Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length
CW 771	7/16"	3/4"	1 1/2"
CW 970	5/8"	1 1/8"	1 1/2"
CW 971	3/4"	1 1/4"	1 1/2"



WIDTH OF EYE 1½"
(2 bearings per eye)

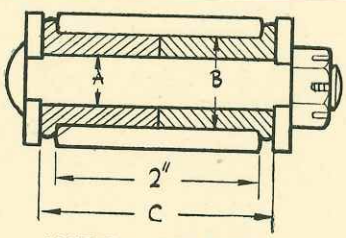
Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length
CW 787	7/16"	3/4"	1 3/4"
CW 719	1/2"	7/8"	1 3/4"
CW 719H	9/16"	1"	1 3/4"
CW 955	5/8"	1 1/8"	1 13/16"
CW 416	7/8"	1 1/4"	1 3/4"
CW 772	3/4"	1 3/8"	1 3/4"
CW 769	7/8"	1 1/8"	1 15/16"

TYPES & DIMENSIONS



WIDTH OF EYE 1¾"
(2 bearings per eye)

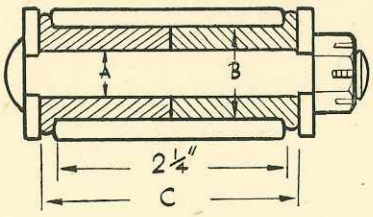
Bearing	"A" Pin Dia.	"B" Eye Dia	"C" Compressed Length
CW 775	7/16"	3/4"	2"
CW 773	7/16"	7/8"	2"
CW 735	1/2"	7/8"	2"
CW 745	9/16"	1"	2 1/16"
CW 995	9/16"	15/16"	2"
CW 953	9/16"	1"	2 1/16"
CW 928	5/8"	1 1/8"	2 1/16"
CW 976	11/16"	1 1/4"	2 1/16"
CW 705	7/8"	1 5/16"	2"



WIDTH OF EYE 2"
(2 bearings per eye)

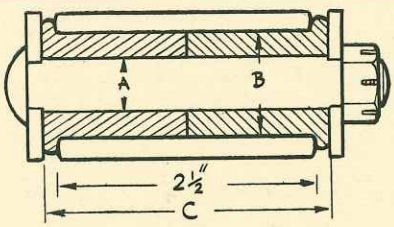
Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length
CW 768	7/16"	3/4"	2 1/4"
CW 717	1/2"	7/8"	2 1/4"
CW 943	9/16"	1"	2 5/16"
CW 718	5/8"	1 1/4"	2 5/16"
CW 760	5/8"	1 1/8"	2 5/16"
CW 982	5/8"	1 3/8"	2 5/16"
CW 965	7/8"	1 1/2"	2 3/8"
CW 983	3/4"	1 3/8"	2 5/16"

TYPES & DIMENSIONS



WIDTH OF EYE 2¼"
(2 bearings per eye)

Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length
CW 795	7/16"	3/4"	2½"
CW 949	7/16"	7/8"	2½"
CW 972	½"	7/8"	2½"
CW 761	5/8"	1⅛"	2 9/16"
CW 425	5/8"	1⅜"	2 9/16"
CW 917	¾"	1⅜"	2 9/16"
CW 688	7/8"	1⅜"	2½"
CW 958	7/8"	1½"	2 11/16"
CW 973	1"	1⅝"	2¾"
CW 975	1⅛"	1 13/16"	2¾"



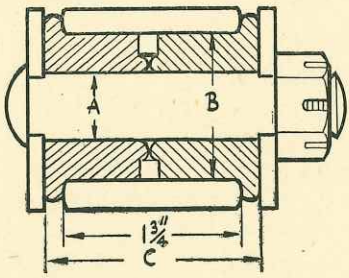
WIDTH OF EYE 2½"
(2 bearings per eye)

Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length
CW 913	5/8"	1¼"	2 13/16"
CW 914	¾"	1⅜"	2 13/16"
CW 915	7/8"	1½"	2⅞"
CW 929	1"	1⅝"	3"
CW 974	1⅛"	1 13/16"	3"
CW 930	1¼"	2"	3"

TYPES & DIMENSIONS

CYLINDRICAL TYPE

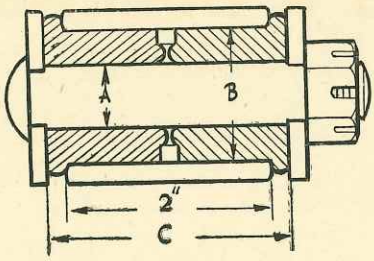
(Shoulderless when uncompressed)



WIDTH OF EYE 1¾"
(2 bearings per eye)

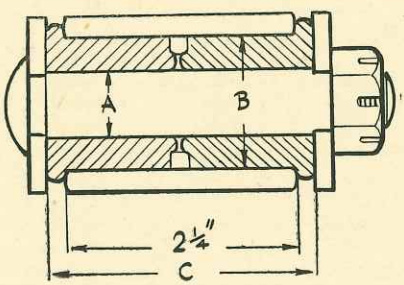
Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length	Washer
CW 696	⅝"	1⅜"	2 1/16"	⅛" × 1"
CW 691	⅝"	1½"	2 1/16"	5/32" × 1"
CW 709	11/16"	1½"	2 1/16"	¼" × 1 1/16"
CW 710	11/16"	2"	2 1/16"	¼" × 1 1/16"
CW 690	1 1/16"	1⅝"	2⅛"	¼" × 1 5/16"

TYPES & DIMENSIONS



WIDTH OF EYE 2"
(2 bearings per eye)

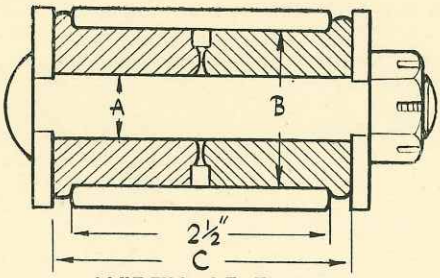
Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length	Washer
CW 734	$\frac{5}{8}$"	$1\frac{1}{2}$"	$2\frac{5}{16}$"	$\frac{3}{16}$" × $\frac{15}{16}$"
CW 683	$\frac{5}{8}$"	$1\frac{1}{2}$"	$2\frac{1}{2}$"	$\frac{3}{16}$" × $1\frac{1}{8}$"
CW 689	$\frac{11}{16}$"	$1\frac{1}{2}$"	$2\frac{5}{16}$"	$\frac{3}{16}$" × 1"
CW 686	$\frac{3}{4}$"	$1\frac{5}{8}$"	$2\frac{5}{16}$"	$\frac{3}{16}$" × $1\frac{1}{8}$"
CW 693	$\frac{3}{4}$"	2"	$2\frac{5}{16}$"	$\frac{3}{16}$" × $1\frac{1}{8}$"
CW 770	$\frac{13}{16}$"	$1\frac{5}{8}$"	$2\frac{5}{16}$"	$\frac{3}{16}$" × $1\frac{1}{4}$"
CW 740	$\frac{7}{8}$"	$1\frac{1}{2}$"	$2\frac{5}{16}$"	$\frac{3}{16}$" × $1\frac{1}{8}$"
CW 739	$1\frac{5}{16}$"	$2\frac{1}{16}$"	$2\frac{1}{2}$"	$\frac{1}{4}$" × $1\frac{11}{16}$"
CW 733–A	1"	$1\frac{3}{4}$"	$2\frac{1}{2}$"	$\frac{3}{16}$" × $1\frac{3}{8}$"



WIDTH OF EYE 2¼"
(2 bearings per eye)

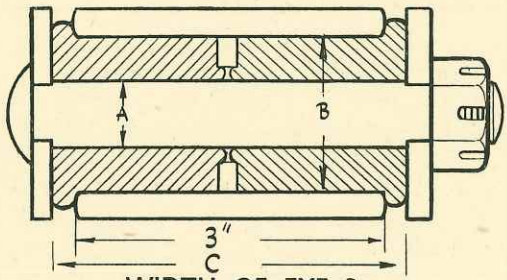
Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length	Washer
CW 694	$\frac{5}{8}$"	$1\frac{1}{4}$"	$2\frac{9}{16}$"	$\frac{3}{16}$" × $\frac{15}{16}$"
CW 683	$\frac{5}{8}$"	$1\frac{1}{2}$"	$2\frac{9}{16}$"	$\frac{3}{16}$" × 1"
CW 534–B	$\frac{5}{8}$"	$1\frac{5}{8}$"	$2\frac{9}{16}$"	$\frac{3}{16}$" × 1"
CW 684	$\frac{13}{16}$"	$1\frac{5}{8}$"	$2\frac{9}{16}$"	$\frac{5}{32}$" × $\frac{13}{16}$"
CW 711	$\frac{13}{16}$"	$1\frac{5}{8}$"	$2\frac{9}{16}$"	$\frac{3}{16}$" × $1\frac{1}{4}$"
CW 721	$\frac{7}{8}$"	$1\frac{5}{8}$"	$2\frac{9}{16}$"	$\frac{3}{16}$" × $1\frac{1}{4}$"
CW 712	$\frac{15}{16}$"	$1\frac{7}{8}$"	$2\frac{3}{4}$"	$\frac{9}{32}$" × $1\frac{3}{8}$"

TYPES & DIMENSIONS



WIDTH OF EYE 2½"
(2 bearings per eye)

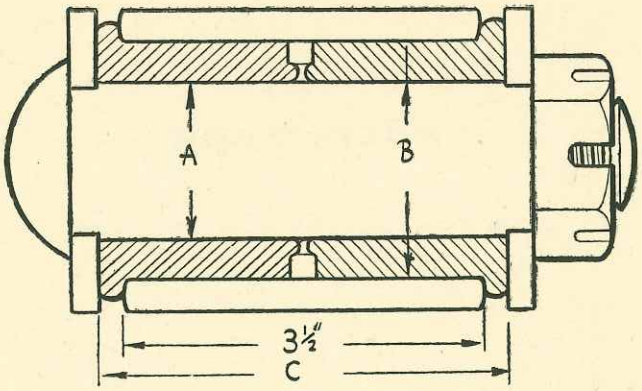
Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length	Washer
CW 408	½"	1"	2¾"	3/16" × ¾"
CW 682	⅝"	1½"	2⅞"	3/16" × 1⅛"
CW 534–C	⅝"	1⅝"	2⅞"	3/16" × 1¼"
CW 733	¾"	1¾"	3"	11/64" × 1½"
CW 695	13/16"	1⅝"	2⅞"	3/16" × 1⅛"
CW 701	15/16"	1⅞"	2⅞"	3/16" × 1 5/16"
CW 763	1"	2"	3"	¼" × 1½"
CW 713	1⅛"	2⅛"	3"	¼" × 1½"
CW 950	1½"	2¼"	3"	3/16" × 1 13/16"
CW 685	1¾"	2½"	3"	¼" × 2"



WIDTH OF EYE 3"
(2 bearings per eye)

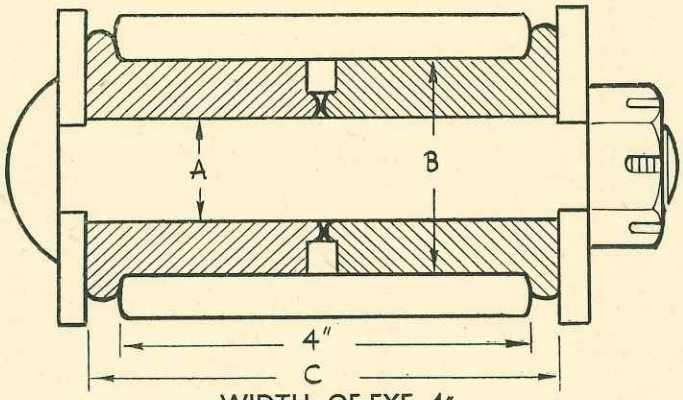
Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length	Washer
CW 764	⅝"	1½"	3⅜"	3/16" × ⅞"
CW 1253	¾"	1⅝"	3⅜"	3/16" × 1⅛"
CW 702	15/16"	1⅞"	3½"	3/16" × 1¼"
CW 782	13/16"	1¼"	3 5/16"	3/16" × 15/16"
CW 738	1⅛"	2⅛"	3 7/16"	3/16" × 1½"
CW 738–A	1¼"	2⅛"	3 7/16"	¼" × 1¾"
CW 948	1½"	2¼"	3 7/16"	3/16" × 1 13/16"
CW 921	1¾"	2¾"	3½"	¼" × 2"

TYPES & DIMENSIONS



WIDTH OF EYE 3½"
(2 bearings per eye)

Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length	Washer
CW 783	1½"	2¼"	3 15/16"	¼" × 1 13/16"
CW 906	1"	1 7/8"	3 15/16"	¼" × 1⅜"
CW 798	2¼"	3⅛"	4"	¼" × 2⅝"



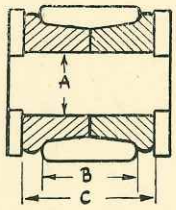
WIDTH OF EYE 4"
(2 bearings per eye)

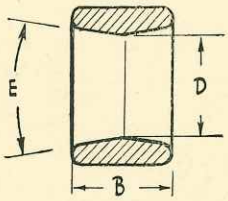
Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Compressed Length	Washer
CW 725	1"	2"	4½"	.3 × 1¼"
CW 793	1¼"	2¼"	4½"	.3 × 1½"
CW 784	1½"	2¼"	4½"	.3 × 1¾"

TYPES & DIMENSIONS

TAPER TYPE

(for small universal movements)

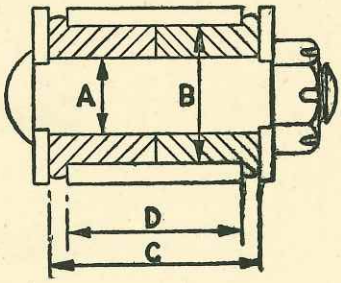




(2 bearings per eye)

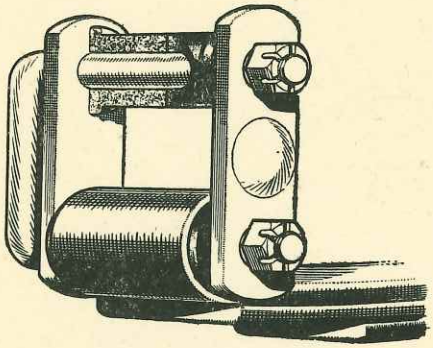
Bearing	"A" Pin Dia.	"B" Width Eye	"C" Compressed Length	"D" Eye Dia.	"E" Inc. Angle
CW 1246	$\frac{3}{8}$″	$\frac{7}{16}$″	$\frac{5}{8}$″	$\frac{11}{16}$″	25°
CW 751	$\frac{3}{8}$″	$\frac{1}{2}$″	$\frac{3}{4}$″	$\frac{7}{8}$″	25°
CW 754	$\frac{7}{16}$″	$\frac{1}{2}$″	$\frac{3}{4}$″	$\frac{7}{8}$″	25°
CW 753	$\frac{7}{16}$″	$\frac{1}{2}$″	$\frac{3}{4}$″	$\frac{31}{32}$″	25°
CW 932	$\frac{7}{16}$″	$\frac{3}{4}$″	$1\frac{1}{16}$″	1″	25°
CW 752	$\frac{1}{2}$″	$\frac{1}{2}$″	$\frac{3}{4}$″	$\frac{31}{32}$″	25°
CW 724	$\frac{5}{8}$″	$\frac{3}{4}$″	$1\frac{1}{16}$″	1″	25°
CW 779	$\frac{5}{8}$″	$\frac{15}{16}$″	$1\frac{1}{4}$″	1″	25°
CW 947	$\frac{3}{4}$″	$1\frac{1}{4}$″	$1\frac{1}{2}$″	$1\frac{1}{4}$″	14°
CW 794	$\frac{3}{4}$″	$1\frac{1}{4}$″	$1\frac{1}{2}$″	$1\frac{1}{4}$″	14°
CW 744	$\frac{7}{8}$″	$1\frac{13}{32}$″	$1\frac{23}{32}$″	$1\frac{3}{8}$″	36°
CW 952	$1\frac{1}{4}$″	$1\frac{7}{8}$″	$2\frac{15}{32}$″	2″	25°
CW 732	$1\frac{1}{2}$″	$2\frac{1}{2}$″	$3\frac{1}{8}$″	$2\frac{1}{4}$″	14°
CW 732A	$1\frac{9}{16}$″	$2\frac{1}{2}$″	$3\frac{1}{8}$″	$2\frac{1}{4}$″	14°

ADDITIONS

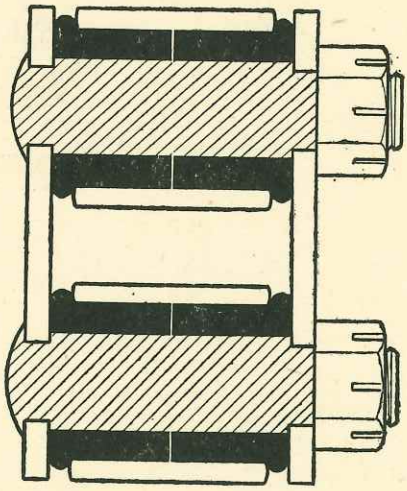


Bearing	"A" Pin Dia.	"B" Eye Dia.	"C" Com-pressed Length	"D" Width of Eye	Type of Bearing
C.W.0719	½"	⅞"	1"	¾"	Shoulder Type
C.W.745A	9/16"	1"	2 5/16"	2 1/16"	,, ,,
CW.745V	9/16"	1"	1⅛"	⅞"	,, ,,
CW.910R	¾"	1⅛"	2"	1¾""	,, ,,
CW.TT.910R	13/16"	1¼"	1⅝"	1⅜"	,, ,,
CW.1236	½"	⅞"	15/16"	11/16"	,, ,,
CW.1239	2"	2⅞"	3⅛"	2 13/16"	Single Sh'der Type
CW.1243	2⅞"	3⅜"	3.55"	3¼"	Cylindrical Type
CW.1243A	2⅞"	3⅜"	3.55"	3¼"	Shoulder ,,
CW.1244	7/16"	¾"	2⅛"	1⅞"	,, ,,
CW.1249	2⅞"	3⅞"	3¼"	2.9	Cylindrical Type
CW.1250	3⅞"	3⅞"	3¼"	2.9	,, ,,
CW.1252	⅝"	1¼"	3⅞"	3⅝"	Shoulder ,,
CW.1234	½"	⅞"	1⅞"	1⅝"	Cylindrical Type
CW.1240	7/16"	1 1/16"	31/32"	43/64"	Shoulder ,,
CW.1242	¾"	1 11/16	2¾"	2½"	Cylindrical Type
CW.1257	1 1/16"	1 11/16"	4¾"	4⅜"	Shoulder ,,
CW.1259	1 1/16"	1 11/16"	4¾"	4⅜"	Cylindrical ,,
CW.1261	6¼""	6¾"	1"	25/32"	Reverse Sh'dr ,,
CW.1262	⅜"	⅝"	½"	¼"	Shoulder Type
CW.1263	2¾"	3½"	7"	6½"	,, ,,
CW.1264	1½"	2⅛"	5	4 9/16"	,, ,,
CW.1265	1¾"	2½"	2"	1½	Cylindrical Type
CW.1268	9/16"	1"	1⅛"	13/16"	Shoulder ,,
CW.1269	7/16"	⅜"	1 1/16"	13/16"	,, ,,
CW.1273	7/16"	¾"	1⅛"	⅞"	,, ,,

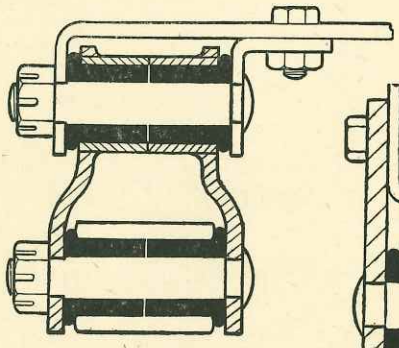
A FEW APPLICATIONS OF THE HARRISFLEX (Patented) BEARINGS AND METHODS OF FITTING



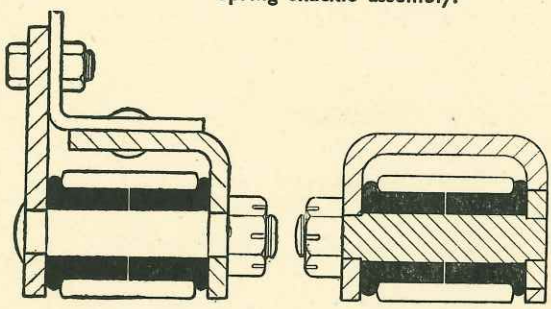
HARRISFLEX patented shackle assembly complete.



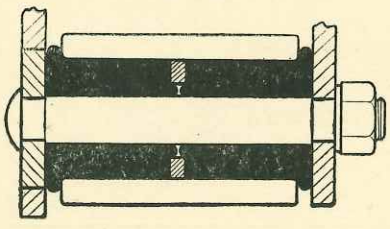
Spring shackle assembly.



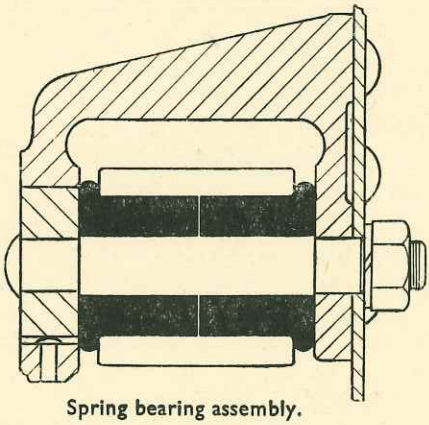
Another shackle assembly installation.



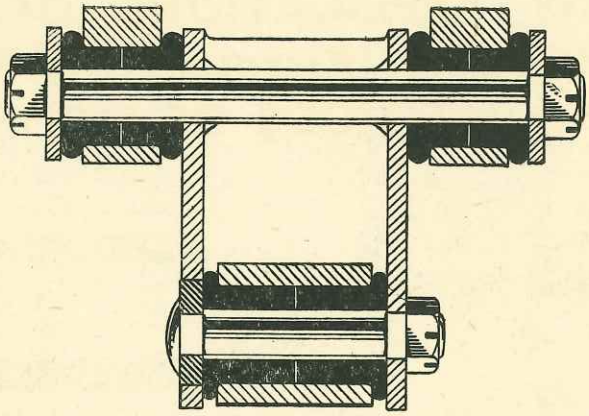
Applied to typical spring anchorage.



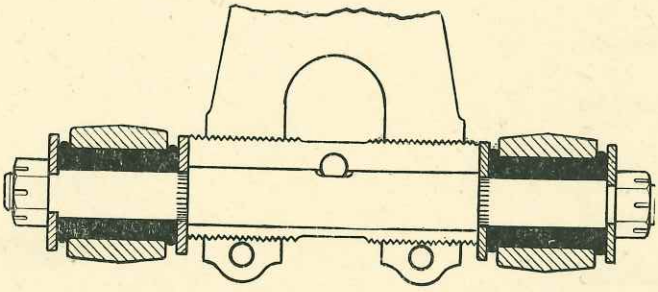
Cylindrical HARRISFLEX bearing on spring anchorage.



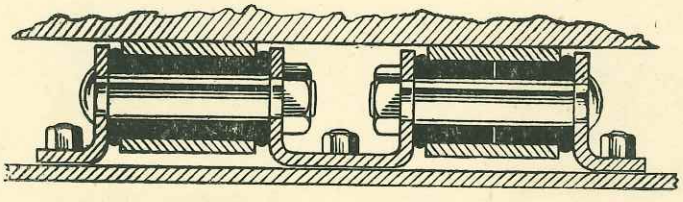
Spring bearing assembly.



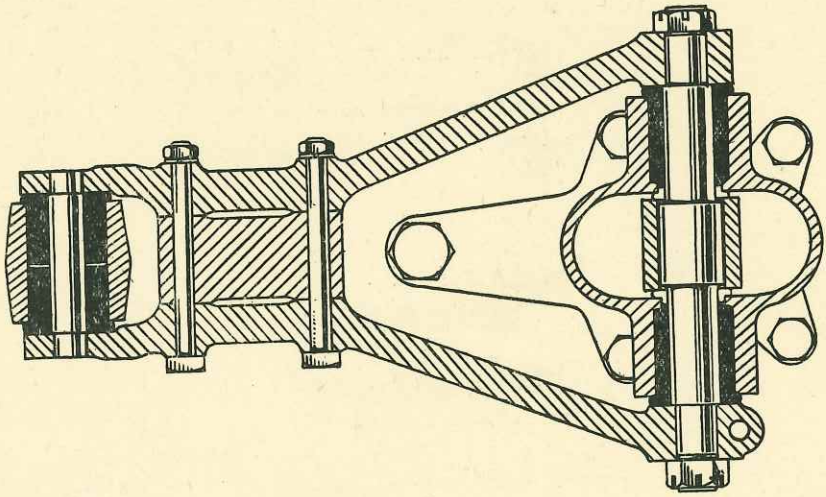
Another Shackle Assembly Installation.



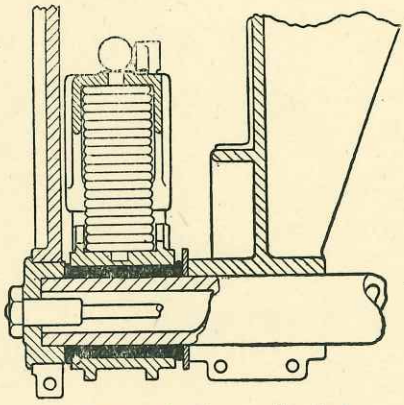
Wishbone bearings.



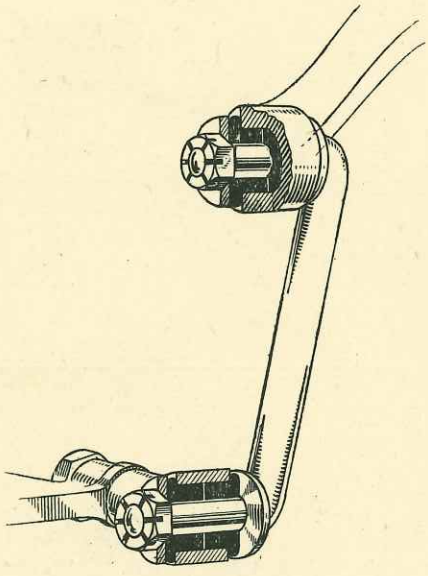
Flexible Mounting Applied To Passenger Transport Bodies.



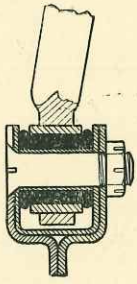
Shock Damper Lever Assembly.



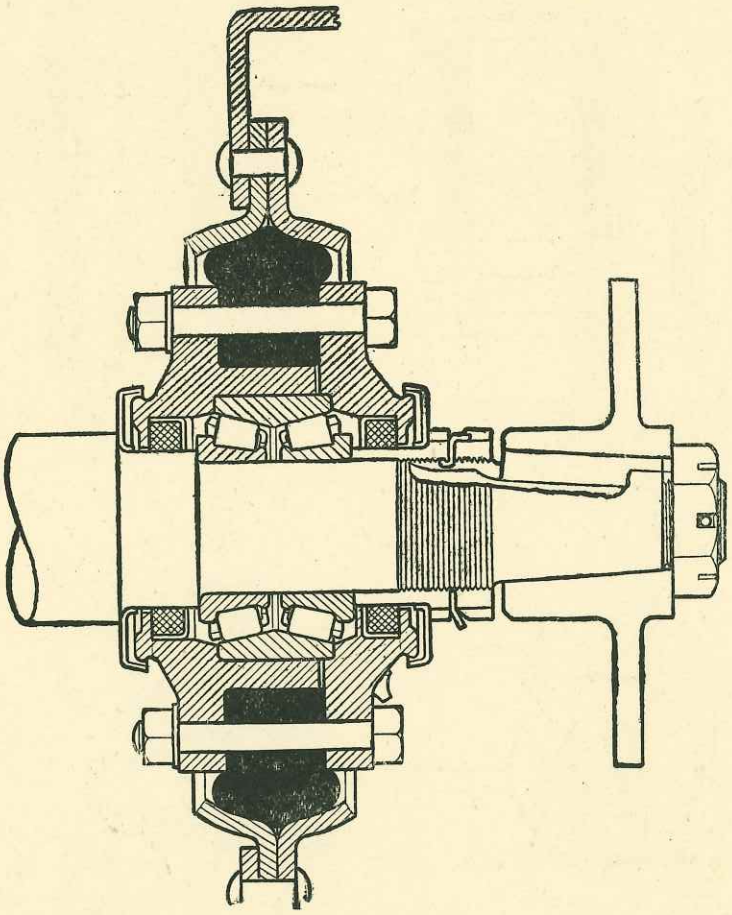
Trunnion bearing application.



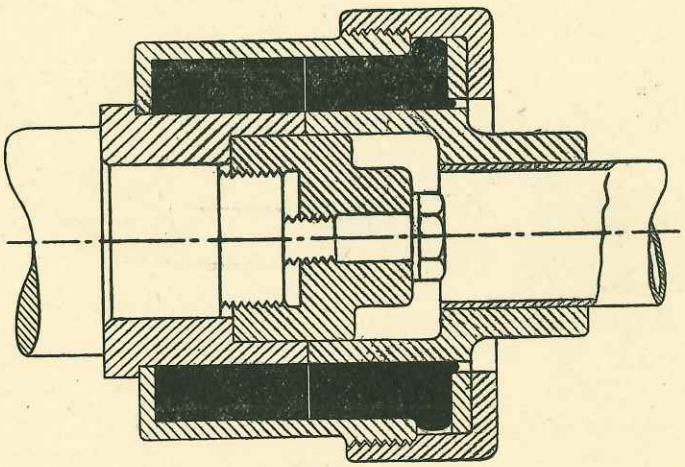
Rear Shock Absorber Linkage.



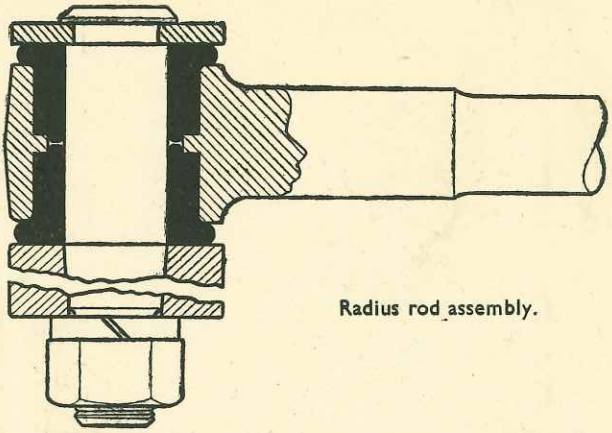
Torque arm bearing assembly.



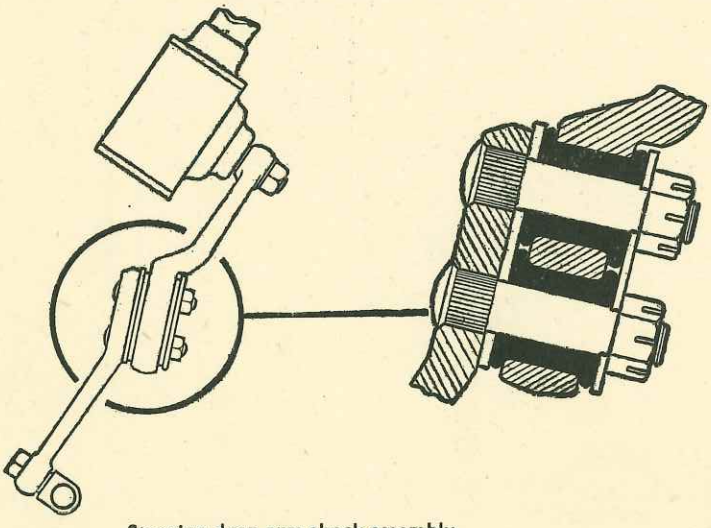
Propeller shaft centre bearing.



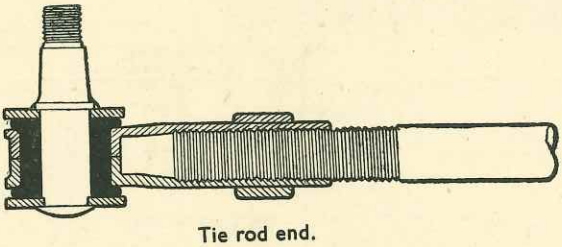
Applied to sleeve Coupling.



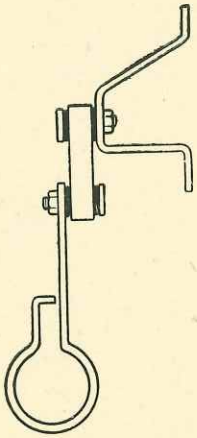
Radius rod assembly.



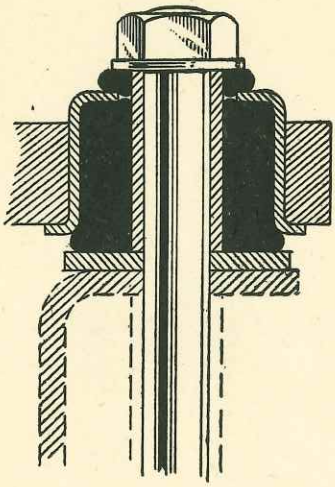
Steering drop arm shock assembly.



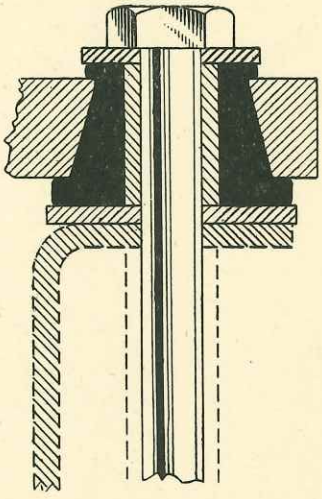
Tie rod end.



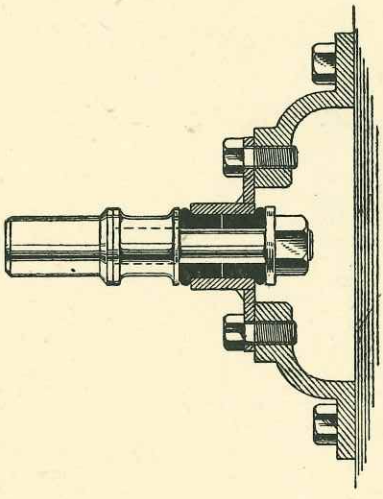
Patented silencer mounting assembly.



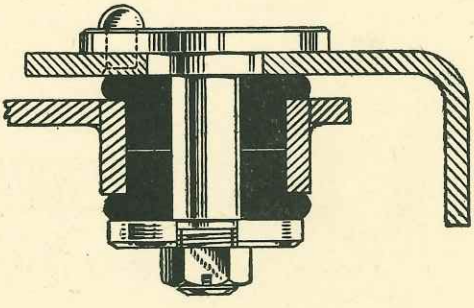
Radiator Mounting



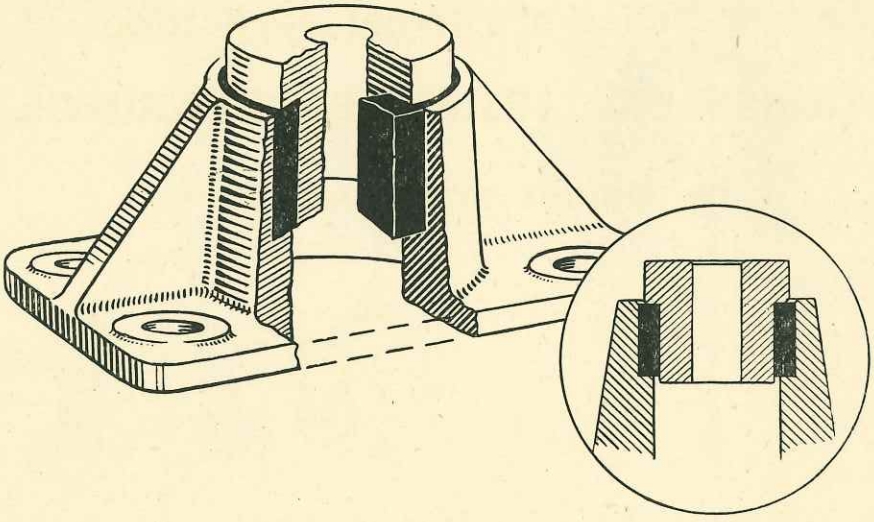
Radiator Mounting.



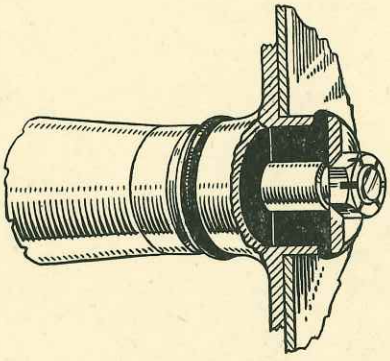
Radiator Stay Mounting.



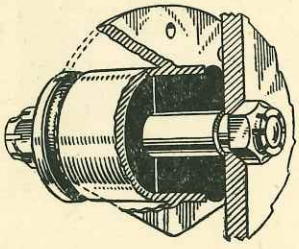
Engine Mounting.



Anti-Vibration Pedestal Mounting.



Anti-Vibration Mountings.
Applied Chiefly to
Aircraft Spinners, etc.

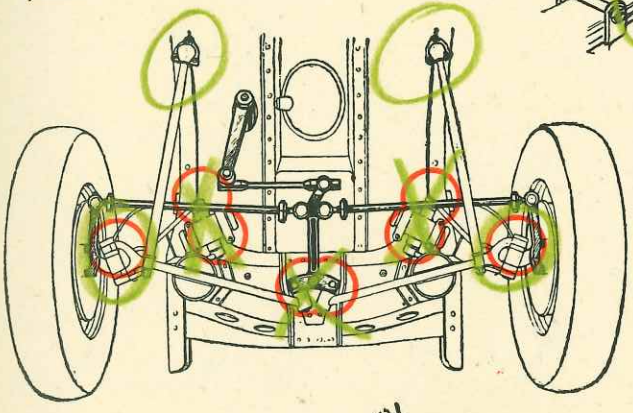


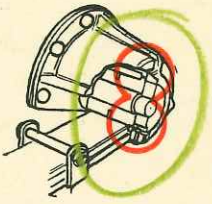
A few examples of current applications of

HARRISFLEX (Patented) BEARINGS

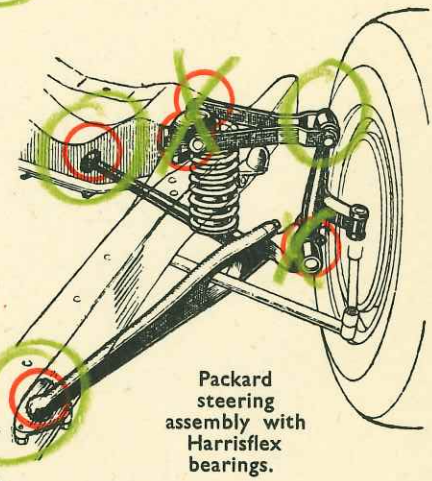
by famous manufacturers

Harrisflex bearings are used in the Packard suspension system.

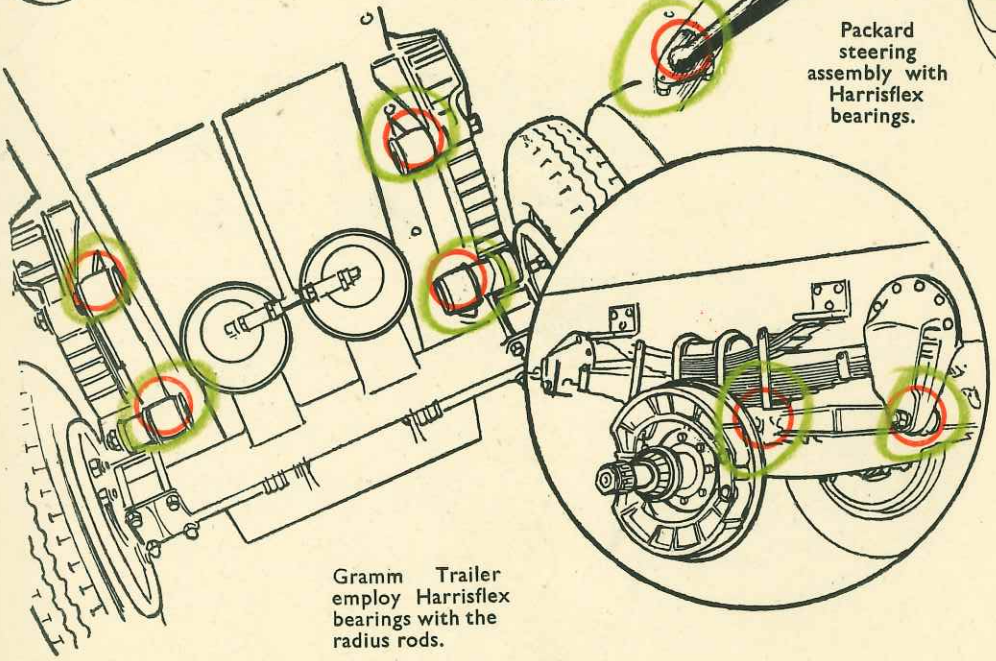




Spring eyes are fitted with Harrisflex bearings on all Federal trucks.

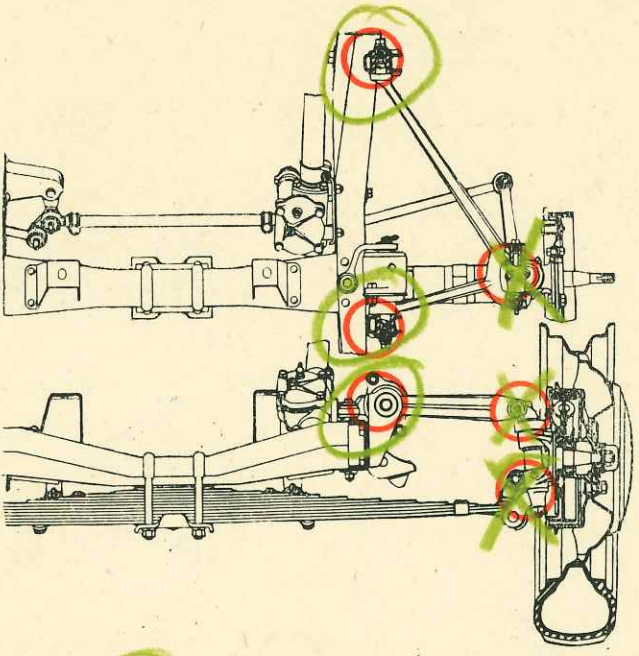


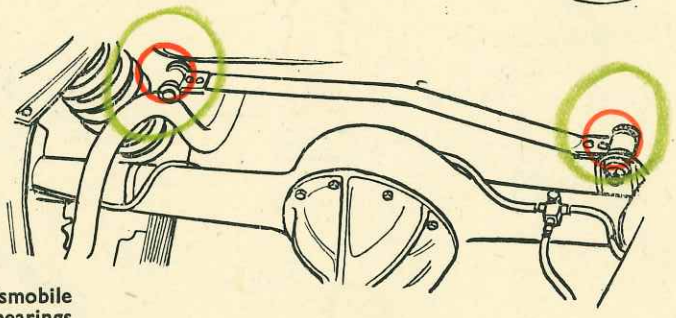
Packard steering assembly with Harrisflex bearings.



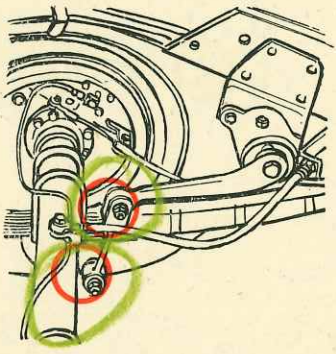
Gramm Trailer employ Harrisflex bearings with the radius rods.

Studebaker Champion Steering details showing where Harrisflex bearings are used. Harrisflex bearings are also utilised in the suspension system of the Studebaker Champion.



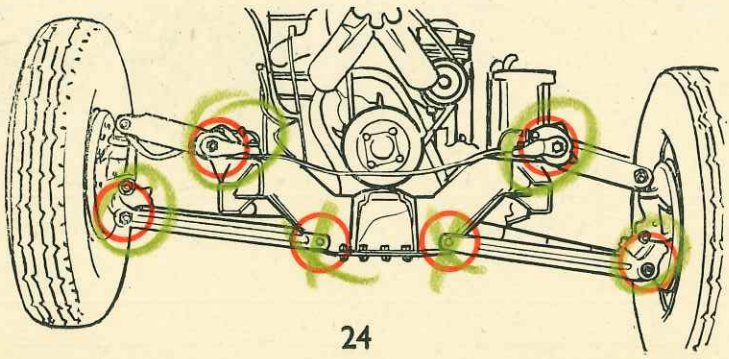


On the Oldsmobile Harrisflex bearings are fitted to the rear stabiliser.

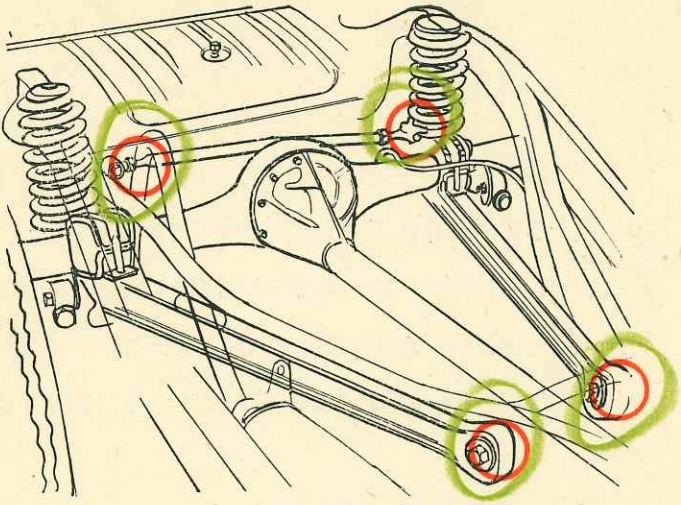


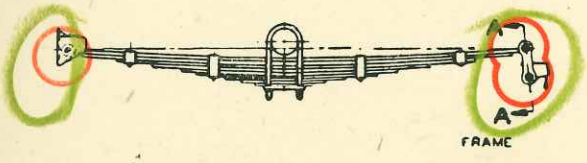
A Harrisflex-assisted shock absorber link on the Studebaker.

Independent front wheel suspension arrangement on the Studebaker with Harrisflex bearings fitted to all links.



Harrisflex bearings are incorporated in the Quadri-Coil springing on this Oldsmobile model; they are fitted to all joints of the stabilising arms and the rear stabiliser bar.

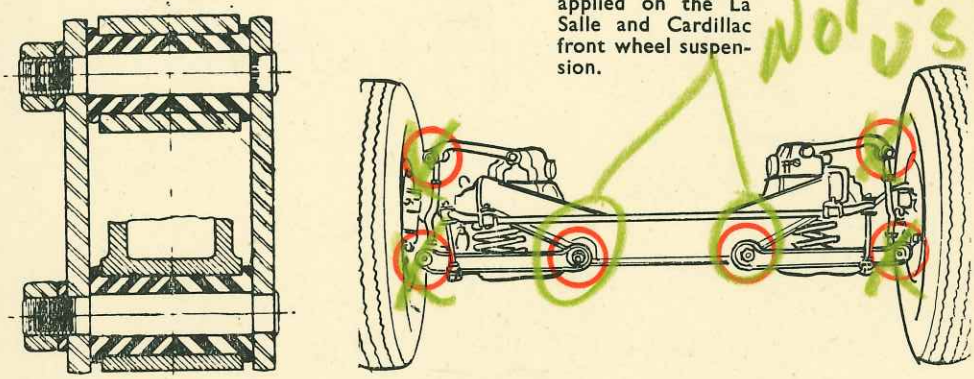




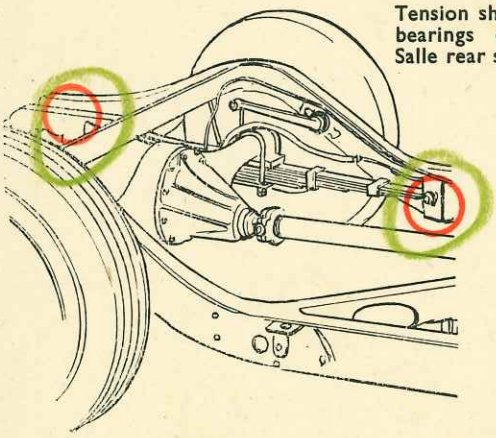
Cadillac springing details. Harrisflex bearings are standardised.

Harrisflex bearings applied on the La Salle and Cardillac front wheel suspension.

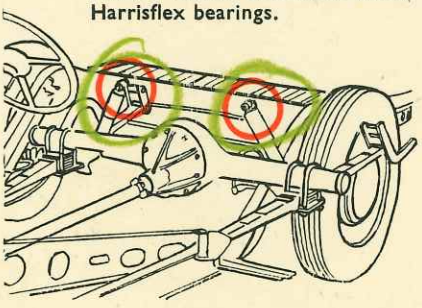
NOT NOW USED



Tension shackles with Harrisflex bearings employed on the La Salle rear suspension.



Pontiac shock absorbers utilise Harrisflex bearings.



TO ENABLE OUR DESIGN DEPARTMENT TO PUT FORWARD THE CORRECT TYPE OF BEARING FOR A GIVEN APPLICATION IT IS REQUESTED THAT ANSWERS TO THE FOLLOWING QUESTIONNAIRE BE GIVEN WHERE POSSIBLE.

1. Type of motion and application.

2. Static and shock loads.

3. Angle of motion.

4. Pin and eye dimensions (if these are fixed)
   (a) diameters
   (b) width of eye
   (c) length of pin.

5. Amount of side (or axial) twist.

6. Maximum allowable resistance to torsion and twist (if such limits are imposed).

7. Maximum allowable deflection in bearing (if limited).

A drawing or sketch of the proposed application will also considerably assist.

HARRISFLEX

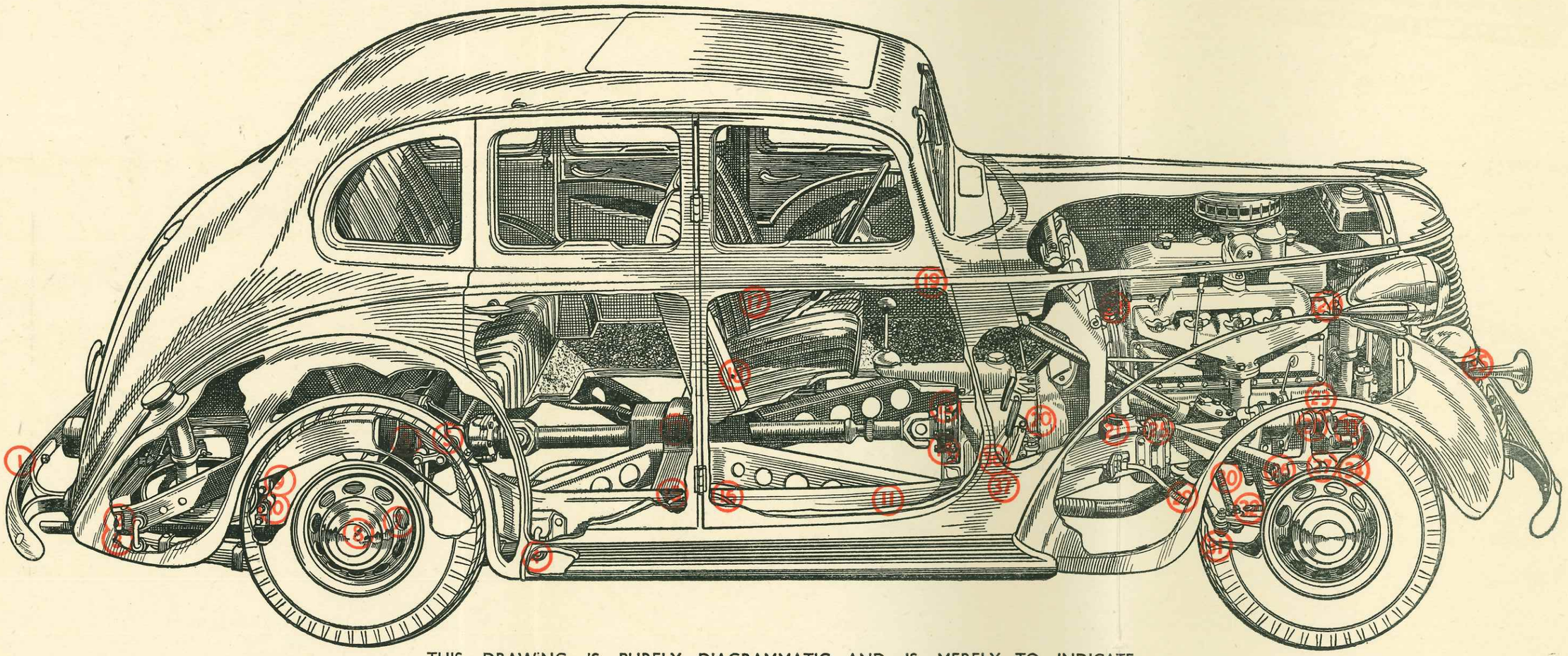
CONTROLLED FLEXIBLE BEARINGS

NOTES

HARRISFLEX
CONTROLLED FLEXIBLE BEARINGS

NOTES

HARRISFLEX (Patented) FLEXIBLE BEARINGS & MODERN CAR DESIGN

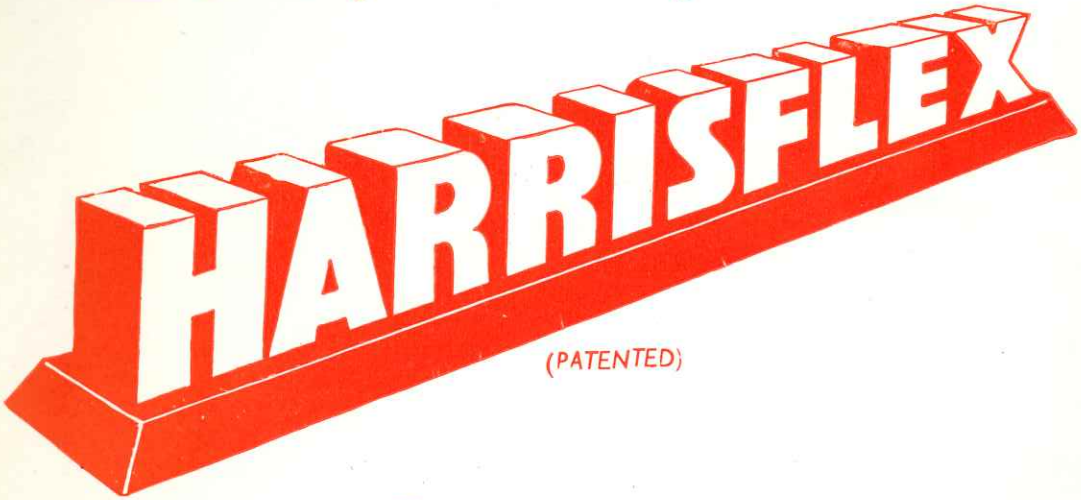


THIS DRAWING IS PURELY DIAGRAMMATIC AND IS MERELY TO INDICATE WHERE **HARRISFLEX FLEXIBLE BEARINGS** MAY BE ADVANTAGEOUSLY APPLIED.
REFERENCE TO THE KEY BELOW GIVES PARTICULARS OF THE PARTS INDICATED.

1. Flexibly mounted bumpers.
2, 3. Spring shackle mounting.
4. Shackle or anchor end.
5, 6, 7. Anti-roll bar.
8. Axle trunnion.
9, 10, 11. Silencer mounting.
12. Centre bearing.
13, 14. Torque tube anchorage.
15, 16. Door check bushes.
17, 18. Flexibly-mounted seats.
19. Flexibly mounted steering column type gear lever.
20. Gear box mounting.
21, 22, 23, 24. Engine mountings.
25, 26, 27, 28. Independent front wheel suspension mounting
29, 30, 31, 32. Flexibly mounted tie rod and other steering joints.
33, 34. Shock absorber link mountings.
35. Radiator mounting
36, 37. Clutch and brake pedal pivot bearing.

MORE THAN

250,000,000



Controlled

FLEXIBLE BEARINGS

are being used all over the world in almost every Trade in addition to the Automobile and Aircraft Industries

THEY ARE EMPLOYED IN CONJUNCTION WITH ROCKING SCREENS, CONVEYOR BANDS AND INNUMERABLE OTHER INDUSTRIAL APPLICATIONS.

Whatever the bearing problem, HARRISFLEX will solve it. Our technical service is at YOUR disposal.

HARRISFLEX BEARINGS LTD.

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HARRISFLEX

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